



# SEQUENCE LISTING

<110> ENGINE, INC.  
KIEFFER, TIMOTHY J.  
CHEUNG, ANTHONY T.

<120> COMPOSITIONS AND METHODS FOR REGULATED PROTEIN  
EXPRESSION IN GUT

<130> 029996/0278721

<140> 09/804,409

<141> 2001-03-12

<160> 19

<170> PatentIn Ver. 2.1

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer

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<211> 2623

<212> DNA

<213> Mus musculus

<400> 7

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<210> 8  
 <211> 226  
 <212> DNA  
 <213> Homo sapiens

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<210> 9  
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 <213> Homo sapiens

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      20              25              30

Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe
      35              40              45

Phe Tyr Thr Pro Lys Thr Arg Arg Glu Ala Glu Asp Leu Gln Val Gly
      50              55              60

Gln Val Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu
      65              70              75              80

Ala Leu Glu Gly Ser Leu Gln Lys Arg Gly Ile Val Glu Gln Cys Cys
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Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn
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<210> 10  
 <211> 450  
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 <213> Homo sapiens

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<210> 11  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 11  
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                   20                  25                  30  
 Thr Leu Ile Lys Thr Ile Val Thr Arg Ile Asn Asp Ile Ser His Thr  
           35                  40                  45  
 Gln Ser Val Ser Ser Lys Gln Lys Val Thr Gly Leu Asp Phe Ile Pro  
           50                  55                  60  
 Gly Leu His Pro Ile Leu Thr Leu Ser Lys Met Asp Gln Thr Leu Ala  
           65                  70                  75                  80  
 Val Tyr Gln Gln Ile Leu Thr Ser Met Pro Ser Arg Asn Val Ile Gln  
                   85                  90                  95  
 Ile Ser Asn Asp Leu Glu Asn Leu Arg Asp Leu Leu His Val Leu Ala  
           100                  105                  110  
 Phe Ser Lys Ser Cys His Leu Pro Trp Ala Ser Gly Leu Glu Thr Leu  
           115                  120                  125  
 Asp Ser Leu Gly Gly Val Leu Glu Ala Ser Gly Tyr Ser Thr Glu Val  
           130                  135                  140  
 Val Ala Leu Ser Arg Leu Gln Gly Ser Leu Gln Asp Met Leu Trp Gln  
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 Leu Asp Leu Ser Pro Gly Cys  
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 <213> Homo sapiens

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<210> 13  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

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      20              25              30

Ala Val Leu Ala Ala Gly Ala Leu Thr Gln Pro Val Pro Pro Ala Asp
  35              40              45

Pro Ala Gly Ser Gly Leu Gln Arg Ala Glu Glu Ala Pro Arg Arg Gln
  50              55              60

Leu Arg Val Ser Gln Arg Thr Asp Gly Glu Ser Arg Ala His Leu Gly
  65              70              75              80

Ala Leu Leu Ala Arg Tyr Ile Gln Gln Ala Arg Lys Ala Pro Ser Gly
      85              90              95

Arg Met Ser Ile Val Lys Asn Leu Gln Asn Leu Asp Pro Ser His Arg
  100              105              110

Ile Ser Asp Arg Asp Tyr Met Gly Trp Met Asp Phe Gly Arg Arg Ser
  115              120              125

Ala Glu Glu Tyr Glu Tyr Pro Ser
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<210> 14  
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 <212> DNA  
 <213> Homo sapiens

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<210> 15  
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<213> Rattus sp.

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tgttttaaac acgttgcttc taagtaaaga gaccgctaga gccacaacca ggaacctaac 180  
tgctgtctggc atcacttgcc ttttcatagt ctccctcagc cggaaccccc ccacgctggg 240  
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tgagggtagg ctgaggggtg caagactgtg agaaaaggga gcccctctct tcttcttgct 360  
cggtagtat ctcagccaag atcctcacca cccagtggaa tcccgtactc cttagaggaaa 420  
ggaagaactc tagaggacgg gaagatcatt gcaagctccc ctatgtgtgc gagcccagcc 480  
cgctccactc agccagccag agcttgaggg tgcttgagac actctctggc gccacttcgc 540  
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<210> 16  
<211> 217  
<212> PRT  
<213> Homo sapiens

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20 25 30  
Ser Arg Pro Phe Asp Asn Ala Met Leu Arg Ala His Arg Leu His Gln  
35 40 45  
Leu Ala Phe Asp Thr Tyr Gln Glu Phe Glu Glu Ala Tyr Ile Pro Lys  
50 55 60  
Glu Gln Lys Tyr Ser Phe Leu Gln Asn Pro Gln Thr Ser Leu Cys Phe  
65 70 75 80



Ser Glu Ser Ile Pro Thr Pro Ser Asn Arg Glu Glu Thr Gln Gln Lys  
                             85                            90                            95  
 Ser Asn Leu Glu Leu Leu Arg Ile Ser Leu Leu Leu Ile Gln Ser Trp  
                             100                            105                            110  
 Leu Glu Pro Val Gln Phe Leu Arg Ser Val Phe Ala Asn Ser Leu Val  
                             115                            120                            125  
 Tyr Gly Ala Ser Asp Ser Asn Val Tyr Asp Leu Leu Lys Asp Leu Glu  
                             130                            135                            140  
 Glu Gly Ile Gln Thr Leu Met Gly Arg Leu Glu Asp Gly Ser Pro Arg  
                             145                            150                            155                            160  
 Thr Gly Gln Ile Phe Lys Gln Thr Tyr Ser Lys Phe Asp Thr Asn Ser  
                             165                            170                            175  
 His Asn Asp Asp Ala Leu Leu Lys Asn Tyr Gly Leu Leu Tyr Cys Phe  
                             180                            185                            190  
 Arg Lys Asp Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val Gln Cys  
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 <212> DNA  
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 ggtgtacggc gcctctgaca gcaacgtcta tgacctcta aaggacctag aggaaggcat 480  
 ccaaacgctg atggggaggc tggaagatgg cagccccggg actgggcaga tcttcaagca 540  
 gacctacagc aagttcgaca caaactcaca caacgatgac gcactactca agaactacgg 600  
 gctgctctac tgcttcagga aggacatgga caaggctcag acattcctgc gcategtgca 660  
 gtgccgctct gtggagggca gctgtggctt ctagctgccc ggggtggcatc cctgtgaccc 720  
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 aataaaatta agttgcatc 799

<210> 18  
 <211> 1167  
 <212> DNA  
 <213> Rattus sp.

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 ccgaaacccg gagttcagtc cctagcactg cacaatctca gtccttatga agtagaggga 180  
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 gaaagagaga aataaataaa tagatagata aataaataaa taagtaaata aatatcttat 300  
 ggctggagag ttgggttcagt gttaaagagc acttattgtg ggggttggga tttatctcag 360  
 tggtagagcg tttgcctagg aagctcaagg ccctgggttc ggtccccagc tccggaaaca 420  
 aaacaaaaca aaacaaaac aaacaaaaca aaaaaaac ctgtctggaa aacacctaaa 480  
 taaagatata tatatataat atatatacat ataataata tatgatata atatataat 540  
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 tgtcatccca ttcatattgc cccaagtggg aaacctatgt actataaact ctaagttcct 660  
 agtcactagg aactctcaag acacctacct caggcagcat cacttcagg gtgccacct 720  
 tatcagttaa catccacatc tgggattcag atcccagatc ccttctgttc cctcagaagt 780  
 cactacagc tttgtggggg tgccccttcc ctccagaggt gccaccagag ttgacctca 840  
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 ctgtgcccag aaaaaaagag gggaggggaga agggggtgct cagcctacca ccgggcaggt 960  
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 ggggaaagt attaggtgta taatggggtt cactgggcag gagcagtggg cttgagcttc 1080  
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 cacagggtct tgaagcaaga tcttgag 1167

<210> 19  
 <211> 1891  
 <212> DNA  
 <213> Rattus sp.

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 tagtgtctag atacacagaa gaggcacatc tctcttacag agagccacca tgtggttgc 180  
 ggggattgaa ctcatacctc tggcagagca gtccgtgctc ttaacgtga gccatctctc 240  
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 aacacctaaa taaagatata tatatataat atatatacat ataataata tatgatata 1260  
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